

CLAIMS

What is claimed is:

1. ~~In a local computer system that has a file system and communicates with a remote computer system, a method of backing up selected files associated with the file system, comprising the acts of:~~

~~receiving user input specifying one or more files to be backed up from among a plurality of files associated with the file system of the local computer system;~~

~~using a mirroring driver that is associated with a file system driver of the local computer system, intercepting write requests that have been transmitted by an application operating at the local computer system to the file system driver;~~

~~for each of the intercepted write requests:~~

~~determining, by the mirroring driver, whether the intercepted write request is associated with one of the specified one or more files; and~~

~~if it is determined that the intercepted write request is associated with said one of the specified one or more files, transmitting the intercepted write request to the remote computer system such that the remote computer system can execute the intercepted write request on a backup copy of said one of the specified one or more files.~~

2. A method as recited in claim 1, wherein the mirroring driver is attached to the file system driver such that the mirroring driver can operate to transmit intercepted write requests to the remote computer system without requiring modification of the application or of the file system driver.

3. A method as recited in claim 1, further comprising the act of modifying a configuration database maintained at the local computer system in response to the user input so as to designate that the specified one or more files are to be backed up at the remote computer system.
4. A method as recited in claim 3, wherein the act of determining comprises the act of comparing a file associated with the intercepted write request with the database.
5. A method as recited in claim 1, further comprising, for each of the intercepted write requests, executing the intercepted write request on a local copy of a file of the plurality of files with which the intercepted write request is associated.
6. A method as recited in claim 5, wherein the write request is received by the remote computer system substantially concurrently with the time the write request is executed on the local copy.
7. A method as recited in claim 1, further comprising, for each of the intercepted write requests that has been determined to be associated with one of the specified one or more files, storing a copy of the intercepted write request on a log file included in the local computer system prior to transmitting the intercepted write request to the remote computer system.
8. A method as recited in claim 1, further comprising, after transmitting the intercepted write request to the remote computer system, receiving an acknowledgement message from the remote computer system.

9. A method as recited in claim 1, wherein the local computer system comprises:
one or more workstations;
a network server; and
a local area network connecting the workstations and the network server.
10. A method as recited in claim 1, wherein the application has no data protection code.

11. A mirroring driver for implementing, in a local computer system that has a file system and communicates with a remote computer system, a method of backing up selected files associated with the file system, comprising:

an interface to a configuration database that specifies that one or more of a plurality of files associated with the file system are to be backed up at the remote computer system;

means for intercepting change information initiated by an application operating on the local computer system, the change information representing a change to a selected file of the plurality of files;

means for comparing information identifying the selected file with a configuration database that specifies that one or more of a plurality of files associated with the file system are to be backed up at the remote computer system so as to determine whether the selected file is to be backed up; and

means for transmitting the change information from the local computer system to the remote computer system if it is determined that the selected file is to be backed up, thereby enabling the remote computer system to make the change to a backup copy of the selected file at the remote computer system, such that the selected file is backed up at the remote computer system.

12. The mirroring driver of claim 11, wherein the change information is associated with a write operation.

13. A mirroring driver as recited in claim 11, further comprising means for storing a copy of the change information in a log file prior to the change information being transmitted to the remote computer system

14. A mirroring driver as recited in claim 11, wherein the configuration database has been initialized in response to input received from a user who has selected the one or more of the plurality of files to be backed up.

15. A mirroring driver as recited in claim 11, wherein the mirroring driver is attached to a file system driver of the local computer system so as to intercept the change information as the change information is being transmitted to the file system driver.

16. A mirroring driver as recited in claim 15, wherein the mirroring driver operates to transmit change information to the remote computer system without requiring modification of the file system driver or the application.

17. A computer system included in a data protection system for backing up selected files associated with a file system of the computer system, wherein the selected files are accessed by an application program having no data protection code, the local computer system including:

a configuration database indicating, based on user input, which of the files of the file system are to be backed up at the remote computer system; and

a mirroring driver for:

intercepting change information initiated by the application program, the change information representing a change to a selected file;

comparing information identifying the selected file with the configuration database to determine whether the configuration database specifies that the selected data file is to be backed up; and

transmitting the change information to the remote computer system when it has been determined by the mirroring driver that the selected data file associated with the change information is to be backed up, such that the change information can be applied to a backup copy of the selected data file at the remote computer system.

18. The computer system of claim 17, wherein the change is a write operation.

19. The computer system of claim 17, wherein the change is a file operation.

20. The computer system of claim 17, wherein the change information is transmitted to the remote computer system substantially concurrently with the time the change is made to the selected file on the computer system.

21. The computer system of claim 17, further comprising a log file in which the change information is stored before being transmitted to the remote computer system.

22. The computer system of claim 21, wherein the mirroring driver is attached to a file system driver that captures the change information and stores the change information in the log file.

R. Cole
RJ